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APR 4 1984

DIVISION OF
OIL, GAS & MINING

IX. BONDING (Amended January 1984)

A bonding estimate of \$997,405 was calculated to totally demolish all structures and reclaim all land mined since 1975 by Chevron Resources Co. and Stauffer Chemical Co. at the Vernal Phosphate Operation. The following assumptions were used to derive the estimate. All calculations are presented following the estimate summary.

ASSUMPTIONS

1. All equipment will be stripped from structures for salvage prior to demolition. Salvage profits would not be used to off-set the cost of demolition or reclamation.
2. The permitted land fill on the property will receive all debris resulting from the operation.
3. All disturbed land, whether under current reclamation or not, was included in the calculations as if untouched.
4. All structures will be demolished, no matter what the age or condition is at the time of demolition.
5. Seeding, fertilizing, and mulching specifications are the same as those presented in the Mine and Reclamation Plan.
6. Private individuals and contractors hired by the state will be utilized.
7. Wage rates were provided by DOGM staff.
8. Equipment rates were based upon quotes from Rental Rate Blue Book for Construction Equipment and from estimates obtained from local vendors and contractors.
9. An 8-hour workday was used for all calculations.
10. Acreage of disturbance was determined from Figure 3, Reclamation map.

BONDING SUMMARY 1984

	<u>ESTIMATE</u>
Demolition of all structures	\$ 282,982
Reclamation of all Lands	<u>584,327</u>
Sub Total	\$ 867,309
Contingency of 15%	<u>130,096</u>
Bonding Total	\$ 997,405

RATES USED IN CALCULATIONS

Labor	\$	10/hr.	\$	80/day
Supervisors	\$	15/hr.	\$	120/day
Operators	\$	15/hr	\$	120/day
Welders	\$	15/hr	\$	120/day

Seed Mix	\$	150/acre
Fertilizer (N-P-O)	\$	45/acre
Mulch	\$	70/ton

EQUIPMENT

WITH OPERATOR

D-4 Dozer	\$	305/day	\$	320/day
D-7 Dozer	\$	905/day		920/day
D-9 Dozer	\$	1,275/day	\$	1,290/day
40 Ton Crane	\$	650/day	\$	665/day
2 yd. Loader	\$	650/day	\$	665/day
633-D Scraper	\$	2,105/day	\$	665/day
Tractor-Trailer	\$	400/day	\$	415/day
Farm Tractor	\$	280/day	\$	295/day

DEMOLITION ESTIMATE

STRUCTURE

ESTIMATE

Concentrator Building	68,325
Small Vehicle/Welding Shop	2,868
Heavy Equipment Shop & Mine Dry	4,468
Warehouse & Mill Complex	23,325
Storage TeePees (3)	25,995
MCC Building	1,401
Main Office	4,585
Electrical Warehouse & Shop	5,480
Water Tank and Pumphouses (5)	1,750
SAG Mill Building	23,990
Overland conveyor Control Bldg.	350
Water Storage Building	1,161
SAG Mill Storage Building	2,107
Stacker/Conveyor	50,000
Suspension Bridge	24,725
Slurry Line	36,225
Barges (2)	1,360
Fuel Dumps (2)	1,032
Oil Storage Building (2)	1,734
Reclamation Storage Bldg.	1,401
Fresh Water Tank Bldg.	350
Guard Station	350
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TOTAL	<u>\$ 282,982</u>

Refer to Structure Calculation Sheets.

RECLAMATION ESTIMATE

<u>Area</u>	<u>Acreage</u>	<u>Estimate</u>
Camp Canyon	54	\$ 87,318
Panel "A"	83	135,015
Panel "C"	122	196,940
Plant Facilities	116	83,210
Concentrator Area (50)		
SAG Mill Area (66)		
Tailings	181	48,864
Roads	68	32,980
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TOTAL	<u>624 acres</u>	<u>\$ 584,327</u>

ROAD ACREAGE CALCULATIONS

	<u>Width (ft.)</u>	<u>Linear Feet</u>	<u>Square Feet</u>	<u>Acreage</u>
Current Entrance	40	10,040	401,600	9.2
Former Entrance	30	4,440	133,200	3.0
SAG Mill	40	10,960	438,400	10.0
Panel A (1)	40	5,080	203,200	4.6
Panel A (2)	40	5,080	203,200	4.6
Panel A (3)	24	6,000	144,000	3.3
Tailing Access	30	7,200	224,400	4.9
Catch & Slurry Dams	20	1,840	36,800	0.8
Boneyard & Disposal	20	3,160	63,200	1.5
Air Field & Access	60	7,000	420,000	9.6
Stacker Access	40	2,360	94,400	2.2
Slurry Line	20	7,600	152,000	3.5
Panel "C" Mine	40	2,000	80,000	1.8
Upper Tails	16	3,400	54,400	1.2
Camp Canyon	40	4,000	160,000	3.6
		TOTALS		<u>68.0</u>

Note: Various access roads on the property were not included as they would be reclaimed at the same time as the mined land.

RECLAMATION CALCULATIONS

STATUS AND ACREAGE OF DISTURBED LANDS

<u>Disturbance</u>	<u>Acreage Pre-1975</u>	<u>Acreage Post-1975</u>	<u>Acreage Total</u>	<u>Acreage Released</u>
Camp Canyon	56	54	110	None
Panel "A"	434	83	517	21.1
Panel "C"	N/A	122	122	None
Plant Facilities				
SAG Mill	N/A	66	66	None
Concentrator	N/A	50	50	None
Tailings	N/A	181	181	None
Roads	N/A	68	68	None
	<u>490</u>	<u>624</u>	<u>1,114</u>	<u>21.2</u>

RECLAMATION CALCULATIONS

Camp Canyon—54 acres

Contouring, D9, 1.5ac/day, 36 days @ 1290/day	\$ 46,440
Top Soil, 633-D, 4ac/day, 13.5 days @ 2120/day	28,620
Seed & Fertilizing, D-4, 10ac/day, 5.4 days @ 320/day	1,728
Seed, 54 acres @ \$150 ea.	8,100
Fertilizer (N.P.O.) 50#/acre @ 45 ea.	2,430
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	\$ 87,318
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Panel "A"—83 acres

Contouring, D-9, 1.5ac/day, 55 day @ 1290/day	\$ 70,950
Topsoil Placement, 633-D, 4ac/day, 21 days @ 2120	44,520
Seeding & Fertilizer, D-4, 8 ac/day, 10.5 days @ 320/day	3,360
Seed, 83 ac @ 150/ac	12,450
Fertilizer (N.P.O.), 83 ac @ 45/ac	3,735
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	\$ 135,015
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Panel "C"—122 acres

Contouring, D-9, 1.5ac/day @ 81 da @ 1290/da	\$ 104,490
Topsoil Placement, 633-D, 4ac/day, 30.5 days @ 2120 day	64,660
Seed and Fertilizing, D-4, 10ac/day, 12.5 days @ 320/day	4,000
Seed, 122 ac @ \$150/ac	18,300
Fertilizer (N.P.O.), 122#/ac @ \$45/ac	5,490
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	\$ 196,940
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Plant Facilities/Concentrator Area—50 acres

Ripping with D-9, 3ac/day, 17 days @ 1290/day	\$ 21,930
Seeding & Fertilizing, D-4, 10 ac/day, 5 days @ \$320/day	1,600
Seed, 50 ac @ \$150/ac	7,500
Fertilizer, (N.P.O.) 50#/ac @ \$45 ea	2,250
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	\$ 33,280
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/SAG Mill Area—66 Acres

Topsoil Placement w/633-D, 4ac/day, 16.5 days @ 2120	\$ 34,980
Seeding & Fertilizing w/D-4 @ 10ac/day, 6.5 days @ 320	2,080
Seed, 66 ac @ \$150/ac	9,900
Fertilizer (N-P-O) 50#/ac @ \$45/ac for 66 ac	2,970
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	\$ 49,930
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RECLAMATION CALCULATIONS, Continued

Tailings—181 acres total, less 75 acres water, = 106 acres to be reclaimed

Mulching, 3000#/ac @ \$70/ton 159 ton	\$	11,130
Ripping, D-9, 10 ac/day, @ \$1290/day, 10.6 days		13,674
Seeding & Fertilizer, D-4, 10 ac/day @ \$320/day, 10.6 days		3,392
Seed @ \$150/ac for 106 acres		15,900
Fertilizer (N.P.O.) 50#/ac \$45/ton 106 ac		<u>4,770</u>
	\$	<u><u>48,864</u></u>

Roads—68 acres

Ripping, D-9, 5 ac/day @ 1290/day	\$	17,544
Seeding & Fertilizing, D-4, 10 ac/day @ 320/day, 6.8 days		2,176
Seed of 68 ac @ 150/ac		10,200
Fertilizer 50#/ac 68 ac @ \$45/ac		<u>3,060</u>
	\$	<u><u>32,980</u></u>

STRUCTURE _____ PUMP HOUSES _____

	MAN OR MACHINE DAYS	DAILY RATE	TOTAL EXPENDITURES
Hourly Employees	2 for $\frac{1}{2}$	80	80
Supervisors			
Crane w/Operator	.25	665	166
Tractor Trailer w/Operator	.25	415	104
Front End Loader w/Operator			
Other			
Other			
Sub Total			350
TOTAL			1750

NOTES: 5 pump houses @ 350 ea.

STRUCTURE _____ CONCENTRATOR _____

	<u>MAN OR MACHINE DAYS</u>	<u>DAILY RATE</u> (Includes Operator)	<u>TOTAL EXPENDITURES</u>
Hourly Employees	10 for 20 days	200	16,000
Supervisors	2 for 20 days	40	4,800
Crane w/Operator	2 for 10 days	20	13,300
Tractor Trailer w/Operator	2 for 15 days	30	12,450
Front End Loader w/Operator	1 for 15 days	15	9,975
Other Welders @ 15 hrs.	3 for 20 days	60	7,200
Other D-7 for 5 days	5	920	4,600
	TOTAL		68,325

NOTES:

STRUCTURE SMALL VEHICLE SHOP

	<u>MAN OR MACHINE DAYS</u>	<u>DAILY RATE</u>	<u>TOTAL EXPENDITURES</u>
Hourly Employees	5 for 2 days	\$80	800
Supervisors	1 for 2 "	120	240
Crane w/Operator	1	665	665
Tractor Trailer w/Operator	2	415	830
Front End Loader w/Operator	.5	665	333
Other			
Other			
TOTAL			2,868

NOTES:

STRUCTURE HEAVY EQUIPMENT TRUCKSHOP & DRY

	<u>MAN OR MACHINE DAYS</u>	<u>DAILY RATE</u>	<u>TOTAL EXPENDITURES</u>
Hourly Employees	5 for 3 days	80	1200
Supervisors	3	120	360
Crane w/Operator	1.5	665	998
Tractor Trailer w/Operator	3	415	1245
Front End Loader w/Operator	1	665	665
Other			
Other			
Other			
TOTAL			4468

NOTES:

STRUCTURE OIL STORAGE BUILDING

	<u>MAN OR MACHINE DAYS</u>	<u>DAILY RATE</u>	<u>TOTAL EXPENDITURES</u>
Hourly Employees	2 for 1 day	80	160
Supervisors			
Crane w/Operator	.5	665	333
Tractor Trailer w/Operator	.5	415	208
Front End Loader w/Operator	.25	665	166
Other			
Other			
Other			
		Sub Total	867
		Total	1,734

NOTE: 2 structures

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STRUCTURE WAREHOUSE & MILL COMPLEX

	<u>MAN OR MACHINE DAYS</u>	<u>DAILY RATE</u>	<u>TOTAL EXPENDITURES</u>
Hourly Employees	10 for 10 days	80	8000
Supervisors	1 for 10 days	120	1200
Crane w/Operator	5	665	3325
Tractor Trailer w/Operator	10	415	4150
Front End Loader w/Operator	10	665	6650
Other			
Other			
Other			
TOTAL			23,325

NOTES:

3

STRUCTURE TEE-PEES

	MAN OR MACHINE DAYS	DAILY RATE	TOTAL EXPENDITURES
Hourly Employees	5 for 5 days	80	2000
Supervisors	1 for 5 "	120	600
Crane w/Operator	5	665	3325
Tractor Trailer w/Operator	5	415	2075
Front End Loader w/Operator	1	665	665
Other			
Other			
Other			
Sub Total			8665
TOTAL			25995

NOTES: 3 Tee-pees

STRUCTURE MOTOR CONTROL CENTER (MCC)

	MAN OR MACHINE DAYS	DAILY RATE	TOTAL EXPENDITURES
Hourly Employees	2 for 2 days	4	80
Supervisors			
Crane w/Operator	$\frac{1}{2}$.5	665
Tractor Trailer w/Operator	1	1	415
Front End Loader w/Operator	$\frac{1}{2}$.5	665
Other			
Other			
Other			
TOTAL			1401

NOTES:

STRUCTURE RECLAMATION STORAGE

	MAN OR MACHINE DAYS	DAILY RATE	TOTAL EXPENDITURES
Hourly Employees	2 for 2 days	4	80
Supervisors			
Crane w/Operator	$\frac{1}{2}$.5	665
Tractor Trailer w/Operator	1	1	415
Front End Loader w/Operator	$\frac{1}{2}$.5	665
Other			
Other			
TOTAL			1401

NOTES:

STRUCTURE MAIN OFFICE

	<u>MAN OR MACHINE DAYS</u>	<u>DAILY RATE</u>	<u>TOTAL EXPENDITURES</u>
Hourly Employees	3 for 3. days	80	720
Supervisors	1 for 1 day	120	120
Crane w/Operator			
Tractor Trailer w/Operator	1 for 1 day	415	830
Front End Loader w/Operator	1 for 3 days	665	1995
Other <u>DZ for 1</u>	1 for 1 day	920	920
Other			
TOTAL			4585

NOTES:

STRUCTURE _____ FUEL DUMP _____

	<u>MAN OR MACHINE DAYS</u>	<u>DAILY RATE</u>	<u>TOTAL EXPENDITURES</u>
Hourly Employees	2 for $\frac{1}{2}$ day	80	80
Supervisors			
Crane w/Operator	.25 day	665	166
Tractor Trailer w/Operator	.25 day	415	104
Front End Loader w/Operator	.25 day	665	166
Other			
Other			
Other			
		Sub Total	516
		TOTAL	1032

NOTES: 2 Fuel Dumps

STRUCTURE ELECTRIC WAREHOUSE & SHOP

	<u>MAN OR MACHINE DAYS</u>	<u>DAILY RATE</u>	<u>TOTAL EXPENDITURES</u>
Hourly Employees	4 for 3 days	12	80
Supervisors	1 for 3 "	3	120
Crane w/Operator	3 days	3	415
Tractor Trailer w/Operator	3 "	3	665
Front End Loader w/Operator	1 "	1	920
Other			
Other			
TOTAL			5480

NOTES:

STRUCTURE SAG Mill

	<u>MAN OR MACHINE DAYS</u>	<u>DAILY RATE</u>	<u>TOTAL EXPENDITURES</u>
Hourly Employees	10 for 10 days <u>100</u>	<u>80</u>	<u>8000</u>
Supervisors	1 for 10 " <u>10</u>	<u>120</u>	<u>1200</u>
Crane w/Operator	8 days <u>8</u>	<u>665</u>	<u>5320</u>
Tractor Trailer w/Operator	10 " <u>10</u>	<u>415</u>	<u>4150</u>
Front End Loader w/Operator	8 " <u>8</u>	<u>665</u>	<u>5320</u>
Other <u> </u>	<u> </u>	<u> </u>	<u> </u>
Other <u> </u>	<u> </u>	<u> </u>	<u> </u>
TOTAL			23,990

NOTES:

#1 BELT CONTROL BUILDING

STRUCTURE

	MAN OR MACHINE DAYS	DAILY RATE	TOTAL EXPENDITURES
Hourly Employees	2 for 1 day	80	80
Supervisors			
Crane w/Operator	.25 days	665	166
Tractor Trailer w/Operator	.25 days	415	104
Front End Loader w/Operator			
Other			
Other			
TOTAL			350

NOTES:

STRUCTURE _____ WATER STORAGE BUILDING _____

	<u>MAN OR MACHINE DAYS</u>	<u>DAILY RATE</u>	<u>TOTAL EXPENDITURES</u>
Hourly Employees	2 for 1 days	2	80
Supervisors			
Crane w/Operator			
Tractor Trailer w/Operator	.5 days	.5	415
Front End Loader w/Operator	.5 "	.5	665
Other D-7	.5 "	.5	920
Other			
TOTAL			1161

NOTES

STRUCTURE FRESH WATER TANK AND BUILDING

	MAN OR MACHINE DAYS	DAILY RATE	TOTAL EXPENDITURES
Hourly Employees	2 for .5 days	80	80
Supervisors			
Crane w/Operator			
Tractor Trailer w/Operator	.25	415	104
Front End Loader w/Operator	.25	665	166
Other			
Other			
TOTAL			350

NOTES

STRUCTURE _____ GUARD HOUSE _____

	<u>MAN OR MACHINE DAYS</u>	<u>DAILY RATE</u>	<u>TOTAL EXPENDITURES</u>
Hourly Employees	2 for .5 days _____ 1 _____	_____ 80 _____	_____ 80 _____
Supervisors	_____	_____	_____
Crane w/Operator	_____	_____	_____
Tractor Trailer w/Operator	.25 day _____	_____ 415 _____	_____ 104 _____
Front End Loader w/Operator	.25 day _____	_____ 665 _____	_____ 166 _____
Other _____	_____	_____	_____
Other _____	_____	_____	_____
TOTAL		350	350

NOTES:

STRUCTURE SAG STORAGE BUILDING

	<u>MAN OR MACHINE DAYS</u>	<u>DAILY RATE</u>	<u>TOTAL EXPENDITURES</u>
Hourly Employees	2 for 2 days	4	80
Supervisors			
Crane w/Operator	.25	.25	665
Tractor Trailer w/Operator	1.5	1.5	415
Front End Loader w/Operator	1.5	1.5	665
Other			
Other			
TOTAL			2107

NOTES:

STRUCTURE STACKER CONVEYOR

	<u>MAN OR MACHINE DAYS</u>	<u>DAILY RATE</u>	<u>TOTAL EXPENDITURES</u>
Hourly Employees	5 for 20 days	80	8000
Supervisors	1 for 20 "	120	2400
Crane w/Operator	1 for 15 "	665	9975
Tractor Trailer w/Operator	2 for 15 "	415	12450
Front End Loader w/Operator	1 for 15 "	665	9975
Other Welders	4 for 15 "	120	7200
Other			
	TOTAL		50000

NOTES:

STRUCTURE SUSPENSION BRIDGE

	<u>MAN OR MACHINE DAYS</u>	<u>DAILY RATE</u>	<u>TOTAL EXPENDITURES</u>
Hourly Employees	5 for 10 days	80	4000
Supervisors	2 for 10	120	2400
Crane w/Operator	1 for 5	665	3325
Tractor Trailer w/Operator	1 for 8 days	415	3320
Front End Loader w/Operator	1 for 8 days	665	5320
Other <u>D-7 @</u>	<u>3</u>	<u>920</u>	<u>2760</u>
Other <u>Welders</u>	<u>3 for 10</u>	<u>120</u>	<u>3600</u>
TOTAL			24725

NOTES:

STRUCTURE SLURRY AND WATER LINE

	MAN OR MACHINE DAYS	DAILY RATE	TOTAL EXPENDITURES
Hourly Employees	10 for 15 days	80	12000
Supervisors	1 for 15	120	1800
Crane w/Operator	2 for 15	415	12450
Tractor Trailer w/Operator	15 days	665	9975
Front End Loader w/Operator			
Other			
Other			
TOTAL			36225

NOTES:

STRUCTURE BARGES

		<u>MAN OR MACHINE DAYS</u>	<u>DAILY RATE</u>	<u>TOTAL EXPENDITURES</u>
Hourly Employees	2 for 1 day	2	80	160
Supervisors	1 day	1	120	120
Crane w/Operator	1 day	1	665	665
Tractor Trailer w/Operator	1 day	1	415	415
Front End Loader w/Operator				
Other				
Other				
TOTAL				1360

NOTES: .